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OM nucleic - nucleic search, using sw model

Run on: February 16, 2003, 16:42:40 : Search time 2267.72 Seconds
(without alignments)
15566.316 Million cell updates/sec

Title: US-09-497-967-5
Perfect score: 1404
Sequence: 1 atgaagaacaacatctggt.....tgatcttactactctgctg 1404

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 24791104 segs, 12571243825 residues

Total number of hits satisfying chosen parameters: 49582208

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	1404	100.0	1404	18	US-09-497-967-5
2	1404	100.0	1410	18	US-09-497-967-102
3	1400.8	99.8	1404	18	US-09-497-967-53
4	782.6	55.7	1404	18	US-09-497-967-3
5	782.6	55.7	1404	18	US-09-498-612-8
6	782.6	55.7	1410	18	US-09-497-967-44
7	138	9.8	138	18	US-09-497-967-74
8	123	8.8	123	18	US-09-497-967-75
9	105	7.5	117	18	US-09-497-967-70
10	104	7.4	104	18	US-09-497-967-71
11	100	7.1	100	18	US-09-497-967-72
12	100	7.1	100	18	US-09-497-967-73
13	99	7.1	99	18	US-09-497-967-76
14	95	6.8	95	18	US-09-497-967-77
15	95	6.8	95	18	US-09-497-967-77
16	95	6.8	95	18	US-09-497-967-82
17	94	6.7	94	18	US-09-497-967-78
18	94	6.7	94	18	US-09-497-967-84
19	92	6.6	92	18	US-09-497-967-83
20	92	6.6	92	18	US-09-497-967-85
21	92	6.6	92	18	US-09-497-967-86

Db 1201 TCTGAGTGTGTGAAGTGTGCTAACTTCTACACCAACGACGAGCTGGTGGCT 1260
QY 1261 GGAATCGACACCTGTACCTCTTCTAACAGAGAGCTGACCTCTGGAGCTGAGGCTAACCTG 1320
Db 1261 GGAATCGACACCTGTACCTCTTCTAACAGAGAGCTGACCTCTGGAGCTGAGGCTAACCTG 1320
QY 1321 CTTGAGTCTGTCTAAGAGAACATCCAGTGTGACTTTCGGCTAACTTCTCTCTATCTCTCTG 1380
Db 1321 CTTGAGTCTGTCTAAGAGAACATCCAGTGTGACTTTCGGCTAACTTCTCTCTATCTCTCTG 1380
QY 1381 CTGCTGATCTCTTACTACCTGCTG 1404
Db 1381 CTGCTGATCTCTTACTACCTGCTG 1404

RESULT 2

US-09-497-967-102
; Sequence 102, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 102
; LENGTH: 1410
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: 55kd i-antigen coding region
US-09-497-967-102

Query Match 100.0%; Score 1404; DB 18; Length 1410;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1404; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAAGAACACATCTCTGGTGATCTCTGATCATCTCTCTTTCATCAACAGATCAAGTCT 60
Db 1 ATGAAGAACACATCTCTGGTGATCTCTGATCATCTCTCTTTCATCAACAGATCAAGTCT 60
QY 61 GCTAACTGTCTCTGGGAACCGAGACCAACCGCTGGACAGGTGGAGACCTGGGAACC 120
Db 61 GCTAACTGTCTCTGGGAACCGAGACCAACCGCTGGACAGGTGGAGACCTGGGAACC 120
QY 121 CTTGCTAACTGTGTGAAGTGTCTCAGAGAAGTCTTCTACTACAACAGCTGCTCTTTCGTG 180
Db 121 CTTGCTAACTGTGTGAAGTGTCTCAGAGAAGTCTTCTACTACAACAGCTGCTCTTTCGTG 180
QY 181 CTTGGAGCTTCTACCTGTACCTCTGTCAGAGAGAGGAGCTGGAGCTCAGCCTAAC 240
Db 181 CTTGGAGCTTCTACCTGTACCTCTGTCAGAGAGAGGAGCTGGAGCTCAGCCTAAC 240
QY 241 CTTCTCTGCTACCGCTAACCTGTGACCCAGTGTAACTGTAAGTGTCTGCTGGAGACCGCT 300
Db 241 CTTCTCTGCTACCGCTAACCTGTGACCCAGTGTAACTGTAAGTGTCTGCTGGAGACCGCT 300
QY 301 ATCGCTGGAGGAGCTACCGACTACCGCTGCTATCATCAACCGAGTGTGAATGTCCGATC 360
Db 301 ATCGCTGGAGGAGCTACCGACTACCGCTGCTATCATCAACCGAGTGTGAATGTCCGATC 360

Thu Feb 20 11:10:42 2003

us-09-497-967-5.inp

RESULT 3

US-09-497-967-53
 ; Sequence 53, Application US/09497967
 ; GENERAL INFORMATION:
 ; APPLICANT: Clark, Theodore G.
 ; APPLICANT: Dickerson, Jr., Harry W.
 ; APPLICANT: Lin, Tian-Long
 ; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
 ; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
 ; FILE REFERENCE: 235.00170101
 ; CURRENT APPLICATION NUMBER: US/09/497,967
 ; PRIOR FILING DATE: 2000-02-04
 ; PRIOR APPLICATION NUMBER: 60/131,121
 ; PRIOR FILING DATE: 1999-04-27
 ; PRIOR APPLICATION NUMBER: 60/118,634
 ; PRIOR FILING DATE: 1999-02-04
 ; PRIOR APPLICATION NUMBER: 60/122,372
 ; PRIOR FILING DATE: 1999-03-02
 ; PRIOR APPLICATION NUMBER: 60/124,905
 ; PRIOR FILING DATE: 1999-03-17
 ; NUMBER OF SEQ ID NOS: 102
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 53
 ; LENGTH: 1404
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic G5
 ; OTHER INFORMATION: proline mutant i-antigen
 ; US-09-497-967-53

Query Match 99.8%; Score 1400.8; DB 18; Length 1404;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 1402; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy	1	ATGAAGAACAAATCTCGTGTGATCTCTGATCATCTCTCTGTTATCAACACGATCAAGTCT	60
Db	1	ATGAAGAACAAATCTCGTGTGATCTCTGATCATCTCTGTTATCAACACGATCAAGTCT	60
Qy	61	GCTAACTGTCTGTGGACCGAGACCAACCGCTGGACAGTGGAGCTGGGAACC	120
Db	61	GCTAACTGTCTGTGGACCGAGACCAACCGCTGGACAGTGGAGCTGGGAACC	120
Qy	121	CCTGCTAACTGTGTGAAGTGTGAAAGAACTTCTACTACAACAAAGCTGCTGTTTCGTG	180
Db	121	CCTGCTAACTGTGTGAAGTGTGAAAGAACTTCTACTACAACAAAGCTGCTGTTTCGTG	180
Qy	181	CCTGGAGCTTCTACCTGTACCCCTTGTCTCAGAGAAGAGCGCTGGAGCTCAGCCTAAC	240
Db	181	CCTGGAGCTTCTACCTGTACCCCTTGTCTCAGAGAAGAGCGCTGGAGCTCAGCCTAAC	240
Qy	241	CCTCTGCTACCGCTAACTGTGTGACCCAGTGTAAAGTGTGCTGCTGGAACCGCT	300
Db	241	CCTCTGCTACCGCTAACTGTGTGACCCAGTGTAAAGTGTGCTGCTGGAACCGCT	300
Qy	301	ATCGCTGGAGAGCTACCGACTAGCTGTATCATCACCAGAGTGTGAAGTGTGCGATC	360
Db	301	ATCGCTGGAGAGCTACCGACTAGCTGTATCATCACCAGAGTGTGAAGTGTGCGATC	360
Qy	361	AACCTTCTACAAGAGAGCGCTCTAACTTCAACGCTGGAGCTTCTACCTGACCGTGTG	420
Db	361	AACCTTCTACAAGAGAGCGCTCTAACTTCAACGCTGGAGCTTCTACCTGACCGTGTG	420
Qy	421	CCTGTGAACCGCTGGAGAGCTCTGACCGCTGGAAACGCTGCTACCATCGTGGCTCAG	480
Db	421	CCTGTGAACCGCTGGAGAGCTCTGACCGCTGGAAACGCTGCTACCATCGTGGCTCAG	480
Qy	481	TGTAACGTGGCTTGTCTTACCGGAACCGCTCTGGACACCGAGTGGACCCGACTACGTG	540
Db	481	TGTAACGTGGCTTGTCTTACCGGAACCGCTCTGGACACCGAGTGGACCCGACTACGTG	540
Qy	541	CGCTCTTTCCACCGAGTGTGGAAGTGTGCGCTGAACTTCTACTACAACGGGAACAACGGA	600

RESULT 4

US-09-497-967-3
 ; Sequence 3, Application US/09497967
 ; GENERAL INFORMATION:
 ; APPLICANT: Clark, Theodore G.
 ; APPLICANT: Dickerson, Jr., Harry W.
 ; APPLICANT: Lin, Tian-Long
 ; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
 ; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
 ; FILE REFERENCE: 235.00170101
 ; CURRENT APPLICATION NUMBER: US/09/497,967
 ; CURRENT FILING DATE: 2000-02-04
 ; PRIOR APPLICATION NUMBER: 60/131,121

Db	541	CGCTCTTTCCACCGAGTGTGGAAGTGTGCGCTGAACTTCTACTACAACGGAAACAACGGA	600
Qy	601	AACACCCCTTTCAACCCCTGAAAAGTCTCAGTGTACCCCTTGTCTCTATCAAGCTGCT	660
Db	601	AACACCCCTTTCAACCCCTGAAAAGTCTCAGTGTACCCCTTGTCTCTATCAAGCTGCT	660
Qy	661	AACGTGGCTCAGGCTACCCCTGGGAAAGAGCGCTACCATCACCGCTCAGTGTACGTGGCT	720
Db	661	AACGTGGCTCAGGCTACCCCTGGGAAAGAGCGCTACCATCACCGCTCAGTGTACGTGGCT	720
Qy	721	TGTCTGTACGGAACCATCTCTGCTGTGGAGTGAACAACCTGGTGGCTCAGAACCCGAG	780
Db	721	TGTCTGTACGGAACCATCTCTGCTGTGGAGTGAACAACCTGGTGGCTCAGAACCCGAG	780
Qy	781	TGTACCAACTGTCTCTTAACCTTCTACAACAACACGCTCTTAACCTTCAACCCCTGGAAC	840
Db	781	TGTACCAACTGTCTCTTAACCTTCTACAACAACACGCTCTTAACCTTCAACCCCTGGAAC	840
Qy	841	TCTACCTGTCTGCTTGTCTGTCTTAACAAGGACTACGAGCTAGGCTACCGCTGGAGGA	900
Db	841	TCTACCTGTCTGCTTGTCTGTCTTAACAAGGACTACGAGCTAGGCTACCGCTGGAGGA	900
Qy	901	GCTGTACCCCTGGCTTAAGCAGTGAACATCGCTTGTCTGACGGAACCGGTATCGCTTCT	960
Db	901	GCTGTACCCCTGGCTTAAGCAGTGAACATCGCTTGTCTGACGGAACCGGTATCGCTTCT	960
Qy	961	GGAGCTACCAACTACGTGATCTCGCAGACCGAGTGTCTGAACTGTCTGCTTAACCTTCTAC	1020
Db	961	GGAGCTACCAACTACGTGATCTCGCAGACCGAGTGTCTGAACTGTCTGCTTAACCTTCTAC	1020
Qy	1021	TTCGACGGAACAACCTTCCAGCTGATCTTCTCGCTGAAGGCTTGTCTCTGCTTAACAAG	1080
Db	1021	TTCGACGGAACAACCTTCCAGCTGATCTTCCAGCTGATCTTCTCGCTGAAGGCTTGTCTCTGCTTAACAAG	1080
Qy	1081	GTGACGAGGAGCTGTGGCTACCGCTGAGGAAACCGCTACCTGATCGCTCAGTGTGCTCTG	1140
Db	1081	GTGACGAGGAGCTGTGGCTACCGCTGAGGAAACCGCTACCTGATCGCTCAGTGTGCTCTG	1140
Qy	1141	GAGTGTCTGTGGAACCGCTGACCGAGGAACCACTCTACCTACAAGCAGGCTGCT	1200
Db	1141	GAGTGTCTGTGGAACCGCTGACCGAGGAACCACTCTACCTACAAGCAGGCTGCT	1200
Qy	1201	TCTGAGTGTGTGAAGTGTGCTGCTAACTTCTACACCAACCAAGCAGACCGCTGGTGGCT	1260
Db	1201	TCTGAGTGTGTGAAGTGTGCTGCTAACTTCTACACCAACCAAGCAGACCGCTGGTGGCT	1260
Qy	1261	GGAATCGACACCTGTACCTTCTTGTACAGAAGCTGACCTCTGGAGCTGAGGCTAACCTG	1320
Db	1261	GGAATCGACACCTGTACCTTCTTGTACAGAAGCTGACCTCTGGAGCTGAGGCTAACCTG	1320
Qy	1321	CCTGAGTCTCTAAGGAAGAACATCCAGTGTGACTTGGCTTAACCTCTGCTATCTCTCTG	1380
Db	1321	CCTGAGTCTCTAAGGAAGAACATCCAGTGTGACTTGGCTTAACCTCTGCTATCTCTCTG	1380
Qy	1381	CTGCTGATCTCTTACTACCTGCTG 1404	
Db	1381	CTGCTGATCTCTTACTACCTGCTG 1404	

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: PRIOR FILING DATE: 1999-04-27
: PRIOR APPLICATION NUMBER: 60/118,634
: PRIOR FILING DATE: 1999-02-04
: PRIOR APPLICATION NUMBER: 60/122,372
: PRIOR FILING DATE: 1999-03-02
: PRIOR APPLICATION NUMBER: 60/124,905
: PRIOR FILING DATE: 1999-03-17
: NUMBER OF SEQ ID NOS: 102
: SOFTWARE: Patent Ver. 2.1

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LENGTH: 1404

TYPE: DNA

; ORGANISM: *Ichthyophthirius multifiliis*

US-09-497-967-3

Query Match 55.7%; Score 782.6; DB 18; Length 1404;
Best Local Similarity 72.5%; Pred. No. 9.6e-210;
Matches 1013; Conservative 0; Mismatches 384; Indels 0; Gaps 0;

QY	1	ATGAAGAACAACTCCTGGTGATCCTGATCATCTCTGTTTCATCAACAGATCAAGTCT	60
Db	1	ATGAAAAATAATTTAGTAATATGATTTATTTTCATTTATCAATTAATAATTAATCT	60
QY	61	GCTAACTGTCCTGGGAACCGAGACCAACACCGCTGGACAGTGGACGACCTGGGAAC	120
Db	61	GCTAAATGTCCTGTTGGAACGTGAACCTTAACACACCGGATAAGTGTATGATCTAGGA	120
QY	121	CCTGCTAACTGTGTGAACCTCTCAGAGAACCTTCTACTACAAACGCTGCTGCTTCG	180
Db	121	CCTGCAATGTGTGAATGTTAGAAAAACTTTATATTAATATGCTGCTGCTTCGTT	180
QY	181	CCTGGAGCTTCTACCTGTACCCCTGTGCTTCAGAAAGACGCTCGAGCTCAGCCTAC	240
Db	181	CCTGGTCTAGTAGCTGTACACCTGTCCATAAAAAAGATGCTGGTCTTTAAACCAAT	240
QY	241	CCTCCTGCTACCGCTAACCTGGTGACCCAGTGTAAAGTGTAAAGTGTCTCTGGAACCG	300
Db	241	CCAGCTGCTACTGCTAATTTAGTGCACATAATGTAAAGCTTAATGCGCTCTGTACCG	300
QY	301	ATGCTGGAGAGCTACCGACTACGCTGTATCATCACCAGTGTGTGAACGTGCGATC	360
Db	301	ATTGCAAGTGGACACAGATTATGACAGCAATAACACAGAATGTGTTAATTTGTAAG	360
QY	361	AACCTTCTAACAGAGAACGCTCCTAACTTCAACGCTGGAGCTTCACTGTAACCGCT	420
Db	361	AATTTTTATTAATGAAATGCTCCAAATTTAATGCAGGTGCTAGTACATGCACAGCT	420
QY	421	CTGTGAACCGCTGGGAGGAGCTCTGACCGCTGGAACGCTGCTACCATCGTGGCTCAG	480
Db	421	CCGGTAACACAGATTGGTGGTGCATTGACTGTGTGTGTAATGCCGCTACCATAGT	480
QY	481	TGTAAGCTGGCTTGTCTACCGGAACCGCTCTGGACGAGGAGTCAACACCGACTAC	540
Db	481	TGTAACGTCGCATGCTCTACTGGTACTGCACCTGTGATGGAGTAACCTACTGATT	540
QY	541	CGCTCTTTCACCGAGTGTGAAGTGTGCGCTGAACTTCTACTACAACGGAAACAACG	600
Db	541	AGATCAATTCACAGAATGTGTTAAATGTAGACTTAACCTTTACTATAATGGTAA	600
QY	601	AACACCCCTTTCAAACCCCTGGAAGTCTCAGTGTACCCCTTGTCTGCTATCAAGC	660
Db	601	AATACTCCCTTCAATCCAGGTAAAAAGTTAATGCACACCTTGTGCGGCAATTTAA	660
QY	661	AACGTGGCTCAGGCTACCTCGGGAACGACGCTACCATCCGCTCAGTGTAAAGT	720
Db	661	AATGTTGCTTAAGCTACTTAGTAAATGCTACATAACCGGATAATGTAAAGCTT	720
QY	721	TGCTCTGACGGAAACCATCTCTGCTGGAGTGAACAACTGGGTGGCTCAGAACACCG	780
Db	721	TGCCCTTGATGGTACTATAAGTGTCTGGAGTAAATAATTTGGGTAGCACAAACACT	780
QY	781	TGTACCAACTGTGCTTCACTTCTACAAACAACAGGCTCTTACTTCAACCCCTGGA	840

RESULT 5

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US-09-498-612-8
; Sequence 8, Application US/09498612
; GENERAL INFORMATION:
; APPLICANT: GAERTIG, Jacek
; APPLICANT: DICKERSON Jr., Harry W.
; APPLICANT: CLARK, Theodore G.
; APPLICANT: THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC
; TITLE OF INVENTION: RECOMBINANT EXPRESSION OF HETEROLOGOUS NUCLEIC ACIDS IN
; TITLE OF INVENTION: PROTOZOA
; FILE REFERENCE: 235,00100101
; CURRENT APPLICATION NUMBER: US/09/498,612
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: PCT/US00/02966
; PRIOR FILING DATE: 2000-02-04
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 8
; LENGTH: 1404
; TYPE: DNA
; ORGANISM: Ichthyophthirius multifiliis
US-09-498-612-8

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Query Match 55.7%; Score 782.6; DB 18; Length 1404;
Best Local Similarity 72.5%; Pred. No. 9.6e-210;
Matches 1013; Conservative 0; Mismatches 384; Indels 0; Gaps 0;

Qy 1 ATGAAGAACAACATCCCTGGTGATCCTGATCATCTCTCTGTTTCATCAACAGATCAAGTCT 60
Db 1 ATGAAAAATAATATTTAGTAATATTTGATTATTTTCATATTTATCAATTTAAATTAATCT 60

Qy 61 GCTAACTGCTGCTGGGAACCGAGCAACACACCGCTGGACAGGTGGACGACCTGGGAACC 120
Db 61 GCTAAATGCTGCTGGAGCTGAACCTTAACACACCGGATAAGTTGATGATCTAGCAACT 120

Qy 121 CCTGCTAACTGCTGAGTGTGAGAGAACTTCTACTACAAACAGCTGCTGCTTTCTG 180
Db 121 CCTGCAAAATGTTGTTAGTAAAGAACTTTTATTAATAATGCTGCTTTCTGTT 180

Qy 181 CTTGAGCTTCTACCTGTACCCTTGCTCCAGAGGAGGAGCGCTGGAGCTCAGCCTAAC 240
Db 181 CTTGCTGTAGTACGCTGACACCTTGCTCCATATAAAGAGATGCTGCTTAACCAAT 240

Qy 241 CCTCTGCTACCGCTAACCTGGTGACCCAGTGTAAACGTGAAGTGTCTGCTGGAACGCT 300
Db 241 CCACCTGCTACTGCTAATTTAGTCACATAATGTAACGTTAAATGCCCTGCTGTACGCA 300

Qy 301 ATCGCTGGAGGAGCTACCGACTACGCTGCTATCATCACCGAGTGTGAACTGTGCGATC 360
Db 301 ATTGCAGTGGAGCAACAGATATTACGCAATATACAGAAATGTGTAATTTAGAAAT 360

Qy 361 AACTTCTACAAGGAGAGCTCCTAACTTCAACGCTGGAGCTTCTACTGTFACCGTTGT 420
Db 361 AATTTTATTAATGAAATGCTCCAAATTTTAAATGAGGTGCTAGTACATGACACAGCTGT 420

Qy 421 CTTGTGAACCGGCTGGAGGAGCTCTGACCGCTGGAACCGCTGCTACATGCTGSCFCAG 480
Db 421 CCGGTAACAGAGTTGGTGGTGCATTTGACTGCTGGTAATGCGCTACCATAGTCCGATAA 480

Qy 481 TGTAACTGCTGTCTACCGGAACCGCTCTGGACGAGGAGTGAACCGAGTACGCTAGCTG 540
Db 481 TGTAACTGCTGCTGCTACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 540

Qy 541 CGCTCTTTCACCGAGTGTGAGTGTGCGCTGAACTTCTACTACACGGGAACACGGA 600
Db 541 AGATCATTCACAGATGTGTTAAATGTAGACTTAACTTTTACTATTAATGGTAATAGTT 600

Qy 601 AACACCCCTTCAACCTGGAAGTCTCAGTGTACCGCTTGCTGCTGCTATCAAGCTGCT 660
Db 601 AATACTCCTTCAACCTGGAAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 660

Qy 661 AACCTGCTCAGCTACCTGGGAACGAGCTGCTACCATCACCGCTCAGTGTAACTGCTGCT 720
Db 661 AATGTTGCTTAACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 720

Qy 721 TGTCTGACGGAACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 780
Db 721 TGCCCTGATGCTACTATAAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 780

Qy 781 TGTACCACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 840
Db 781 TGTACTAATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 840

Qy 841 TCTACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 900
Db 841 AGTACATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 900

Qy 901 GCTGCTACCTGGCTAGCAGTGTACATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 960
Db 901 GCCGCTACTAGCCAAATATGTAATTTATGCAATGCTGCTGCTGCTGCTGCTGCTGCTGCT 960

Qy 961 GGAGCTACCAACTACGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1020
Db 961 GGAGCACTAATTTATGTAATTTATTAACAGAAATGCTAAATTTGCTGCTGCTGCTGCTGCT 1020

Qy 1021 TTCGACGGAACAACATTCAGGCTGGATCTTCTCGCTGTAAGCTTGCTCTGCTAACAG 1080
Db 1021 TTTGATGTAATAATTTCTAGCAGGAAGTAGTAGATGCAAAAGCATGTCCAGCAATAAA 1080

Qy 1081 GTGAGGAGCTGTGCTACCGCTGGAGGAACCGCTACCTGATCGCTCAGTGTGCTGTG 1140
Db 1081 GTTTAAGGCGCTGTAGCAACTGCAGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1140

Qy 1141 GAGTGTCTGCTGCAACCGCTGCTGACCGAGGAACCACTCTACCTTACAAAGGAGGCTGT 1200
Db 1141 GAATGCCCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1200

Qy 1201 TCTGAGTGTGTAAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1260
Db 1201 TCTGAATGTGTTAAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1260

Qy 1261 GGAATCGACCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1320
Db 1261 GGTATGTGATCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1320

Qy 1321 CTTGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1380
Db 1321 CTTGAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1380

Qy 1381 CTGCTGATCTCTTACTA 1397
Db 1381 TTAATGATTTCTTATTA 1397

RESULT 6
US-09-497-967-44
; Sequence 44, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHATHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 44
; LENGTH: 1410
; TYPE: DNA
; ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-44

Query Match 55.7%; Score 782.6; DB 18; Length 1410;
Best Local Similarity 72.5%; Pred. No. 9.6e-210;
Matches 1013; Conservative 0; Mismatches 384; Indels 0; Gaps 0;

Qy 1 ATGAAGAACAACATTCCTGGTGATCCTGCTGATCATCTCTCTGTTTCATCAACAGATCAAGTCT 60
Db 1 ATGAAAAATAATATTTAGTAATATTTGATTATTTTCATATTTTATCAATTTAAATTAATCT 60

Qy 61 GCTAACTGCTGCTGGGAACCGAGCAACACCGCTGGAGCTGGACGACCTGGGAACC 120
Db 61 GCTAAATGCTGCTGGAGCTGAACTTAACACCGGATAAGTTGATGATCTAGCAACT 120

Qy 121 CTTGAGTGTGTAAGTGTGAGAGAACTTCTACTACAAACAGCTGCTGCTTTCTG 180
Db 121 CTTGCAAAATGTTGTTAGTAAAGAACTTTTATTAATAATGCTGCTGCTTTCTGTT 180

QY 181 CTTGGAGCTTCTACCTGTACCCCTTCTCCTCAGAGAAGGAGCGCTGAGCTCAGCCTAAC 240
Db 181 CTTGGTCTAGTAGCTGTACACCTTGTCCATAAAAAAGATGCTGGTCTTAACCAAT 240
QY 241 CTTCTCTACCGCTAACCTGTTGACCGAGTGAACGTGAAGTGTCTCTGCTGGAAACCGCT 300
Db 241 CCACCTGCTACTGCTAAATTTAGTCACATAATGTAACGTTAAATGCCCTGCTGTACCGCA 300
QY 301 ATCGCTGGAGGAGCTACCGACTACGCTATCATCATCACCGAGTGTGGAACCTGTCGATC 360
Db 301 ATTGCAGGTGGAGACAGATATCGACGAATAATCACGAATGTGTTAATGTAGAATT 360
QY 361 AACTTCTACAGCAGAGCTCCTAACTTCAACGCTGGAGCTTCTACCTGTACCGCTGT 420
Db 361 AATTTTATAATGAAATGCTCCAAATTTTAAATGAGCTTAAATGACAGCTTGT 420
QY 421 CTTGTGAACCGGTGGAGGAGCTGTACCGCTGGAACGCTGTACATCGTGGCTCAG 480
Db 421 CCGGTAAACAGATGTGGTGGTGCATGTACTGCTGTGTAATGCCGCTACCATAGTCGCATAA 480
QY 481 TGTACGTTGGCTTCTCCTACCGGAACCGCTCTGGACGAGGAGTGACCAACGCTACGTTG 540
Db 481 TGTACGTCGCGATGCTCTACTGCTGCTGATGATGAGTAACTACTGATTAATGTT 540
QY 541 CGCTCTTTCACCGAGTGTGAAGTGTGCGCTGAACCTTCTACTACAAACGGAACACGGA 600
Db 541 AGATCAATTCACAGAAATGTTTAAATGTAGACTTAACTTTTACTATATGCTAATATGTT 600
QY 601 AACACCCCTTTCACCCCTGGAAGTCTCAGTGTACCCCTTGTCTGCTATCAAGCTGCT 660
Db 601 AATACTCTTCAATCCAGGTAAAGTTAATGACACCTTGTCCGCAATTTAAACCTGCT 660
QY 661 AAGTGGCTCAGGCTACCCCTGGGAACGAGCTACCACTACCGCTCAGTGTACGTTGGCT 720
Db 661 AATGTGCTTAAGCTACTTTAGTAAATGATGCTACATAACCGCAATAATGTAACGTTGA 720
QY 721 TGTCTGACGGAACCACTCTGCTGCTGGAGTGACAACTGGTGGCTGAGAACACCGAG 780
Db 721 TGCCCTGATGCTACTATAAGTGTGCTGGAGTAAATAATTTGGTAGCACAAACACTGAA 780
QY 781 TGTACCACTGTGCT 840
Db 781 TGTACTAATTTGCT 840
QY 841 TCTACCTGTCTGCT 900
Db 841 AGTACATGCT 900
QY 901 GCTGCTACCTCTGCT 960
Db 901 GCCGCTACTTTAGCCAATTAATGTAATTTAGCATGCCCTGATGGTACTGCAATTTGCTAGT 960
QY 961 GGAGCTACCAACTACGCTGCT 1020
Db 961 GGAGCAACTAATTTATGTAATTTAATAACAGAAATGCTAATTTGCTGCTCTCTCTCTCTCT 1020
QY 1021 TTGACGGAACAACTTCCAGGCTGATCTTCTGCTGTGAAGCTGTGCTCTCTCTCTCTCTCTCT 1080
Db 1021 TTTGATGGTAATTAATTTCTAGGCAAGAAAGTAGTAGTGAAGAGCATGTCCAGCAATAATAA 1080
QY 1081 GTGACGAGCTGTGGCTACCGCTGGAGAACCGCTACCCCTCATCTCTCTCTCTCTCTCTCTCTCT 1140
Db 1081 GTTTAAGCGCTGTAGCAACTGCAGTGGTACTGCTACTCTTAAATGGCAATAATGTGCCCTT 1140
QY 1141 GAGTGTCT 1200
Db 1141 GAATGCCCT 1200
QY 1201 TCTGAGTGTGAAGTGTCT 1260
Db 1201 TCTGATGTGTTAATGTCT 1260
QY 1261 GGAATCGACACCTGTACCTCTTTGTAAACAGAAGCTGACCTCTCTGGAGCTGAGCTTAACCTG 1320

Db 1261 GGTATTGATACATGTACTAGTTGTAATAAAAAATTAACCTTCTGGGCTGAAGCTAATTTA 1320
QY 1321 CTTGAGCTCTGCTAAAGAGAACATCCAGTGTGACCTTGGTAACTTCCCTGTCTATCTCTCTG 1380
Db 1321 CTTGAACTCTGCTAAAAAAAATATATATGATGTTTCGCTAAATTTTATCAATTTTCCTTA 1380
QY 1381 CTGCTGATCTTTACTA 1397
Db 1381 TTATTGATTCTTCTA 1397

RESULT 7

US-09-497-967-74
; Sequence 74, Application us/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 74
; LENGTH: 138
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-74

Query Match 9.8%; Score 138; DB 18; Length 138;
Best Local Similarity 100.0%; Pred. No. 5.3e-28;
Matches 138; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 313 GCTACCGACTACGCTGCTATCATCACCAGTGTGTGAACCTGCGCATCAACTTCTACAAAC 372
Db 1 GCTACCGACTACGCTGCTATCATCACCAGTGTGTGAACCTGCGCATCAACTTCTACAAAC 60
QY 373 GAGAACCTCTTAACTTCAACGCTGGAGCTTCTACCTGTACCGCTTGTCTGTGAACCGC 432
Db 61 GAGAACCTCTTAACTTCAACGCTGGAGCTTCTACCTGTACCGCTTGTCTGTGAACCGC 120
QY 433 GTGGAGGAGCTCTGACC 450
Db 121 GTGGAGGAGCTCTGACC 138

RESULT 8

US-09-497-967-75/c
; Sequence 75, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; FILE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121

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; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 75
; LENGTH: 123
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-75

Query Match          8.8%; Score 123; DB 18; Length 123;
Best Local Similarity 100.0%; Pred. No. 8.7e-24;
Matches 123; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 430 CCGCTGGAGGAGCTCTGACCGCTGGAAACGCTGCTACCATCTGCTGCTAGTGTAAAGTG 489
Db 123 CCGCTGGAGGAGCTCTGACCGCTGGAAACGCTGCTACCATCTGCTGCTAGTGTAAAGTG 64
QY 490 GCTTGTCTTACCGGACCGCTCTGGACGAGGAGTGACCGACTACGTCGCGCTCTTTC 549
Db 63 GCTTGTCTTACCGGACCGCTCTGGACGAGGAGTGACCGACTACGTCGCGCTCTTTC 4
QY 550 ACC 552
Db 3 ACC 1

RESULT 9
US-09-497-967-70
; Sequence 70, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 70
; LENGTH: 117
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-70

Query Match          7.5%; Score 105; DB 18; Length 117;
Best Local Similarity 100.0%; Pred. No. 1e-18;
Matches 105; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGAAGAACACATCCCTGGTGATCATCTCTCTGTCATCAACAGATCAAGTCT 60
Db 13 ATGAAGAACACATCCCTGGTGATCATCTCTCTGTCATCAACAGATCAAGTCT 72
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QY 61 GCTAACTGTCTGTGGGAACCGAGACCAACACACCGCTGGACAGGTG 105
Db 73 GCTAACTGTCTGTGGGAACCGAGACCAACACACCGCTGGACAGGTG 117

RESULT 10
US-09-497-967-71/c
; Sequence 71, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 71
; LENGTH: 104
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-71

Query Match          7.4%; Score 104; DB 18; Length 104;
Best Local Similarity 100.0%; Pred. No. 1.9e-18;
Matches 104; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 84 GACCAACACCGCTGGACAGGTGGACGACCTGGAAACCCCTCTAAGTGTGTAAGTCTCA 143
Db 104 GACCAACACCGCTGGACAGGTGGACGACCTGGAAACCCCTCTAAGTGTGTAAGTCTCA 45
QY 144 GAAGAACTTCTACTACAAACGCTGCTGCTTCTGCTGGAG 187
Db 44 GAAGAACTTCTACTACAAACGCTGCTGCTTCTGCTGGAG 1

RESULT 11
US-09-497-967-72
; Sequence 72, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 72
```


; LENGTH: 100
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-72

Query Match 7.1%; Score 100; DB 18; Length 100;
Best Local Similarity 100.0%; Pred. No. 2.5e-17;
Matches 100; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 165 CGCTGCTGCTTTGCTGCTGGAGCTCTACCTGTACCCCTTGCTCAGAGAAGGAGCGC 224
Db 1 CGCTGCTGCTTTGCTGCTGGAGCTCTACCTGTACCCCTTGCTCAGAGAAGGAGCGC 60
QY 225 TGGAGCTCAGCCTAACCCCTCTGCTACCGCTAACCTGGTG 264
Db 61 TGGAGCTCAGCCTAACCCCTCTGCTACCGCTAACCTGGTG 100

RESULT 12
US-09-497-967-79/c
; Sequence 79, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 79
; LENGTH: 100
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-79

Query Match 7.1%; Score 100; DB 18; Length 100;
Best Local Similarity 100.0%; Pred. No. 2.5e-17;
Matches 100; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 753 GAACAACCTGGTGGCTCAGAACCCGAGGTACCAACTGTGCTCCCTAACTTCTACAACAA 812
Db 100 GAACAACCTGGTGGCTCAGAACCCGAGGTACCAACTGTGCTCCCTAACTTCTACAACAA 41
QY 813 CAACGCTCCTAACTTCAACCCCTGGAACCTACTGTCTG 852
Db 40 CAACGCTCCTAACTTCAACCCCTGGAACCTACTGTCTG 1

RESULT 13
US-09-497-967-76
; Sequence 76, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF

; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 76
; LENGTH: 99
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-76

Query Match 7.1%; Score 99; DB 18; Length 99;
Best Local Similarity 100.0%; Pred. No. 4.9e-17;
Matches 99; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 532 GACTACGTGGCTCTTTTCCACCGAGTGTGTAAGTGTGCGCTGAAGTCTTACTACAACGGA 591
Db 1 GACTACGTGGCTCTTTTCCACCGAGTGTGTAAGTGTGCGCTGAAGTCTTACTACAACGGA 60
QY 592 AACACGGAAACACCCCTTTCAACCCCTGGAAGTCTTCAG 630
Db 61 AACACGGAAACACCCCTTTCAACCCCTGGAAGTCTTCAG 99

RESULT 14
US-09-497-967-73/c
; Sequence 73, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 73
; LENGTH: 95
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotide primers
US-09-497-967-73

Query Match 6.8%; Score 95; DB 18; Length 95;
Best Local Similarity 100.0%; Pred. No. 6.5e-16;
Matches 95; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 242 CTCTGCTCAGCTAACCTGGTGACCCAGTGAACGTGAAGTGTCTCTGCAACCGCTA 301
|||||

